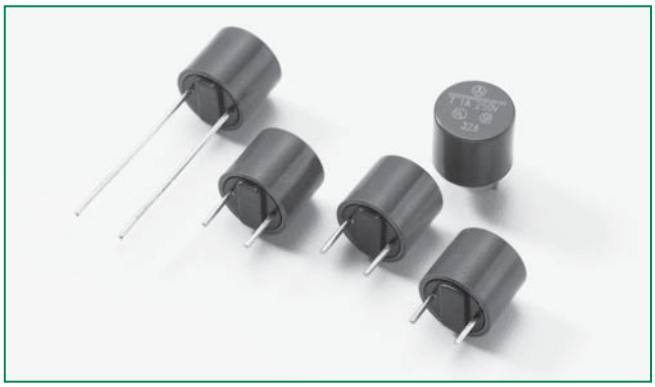
374 Series, TR5®, Time-Lag Fuse



Agency Approvals

Agency	Agency File Number	Ampere Range
UL	File number: E 67006	50mA - 6.3A
CSA	Certification: 51378	50mA - 6.3A
cULus	File number: E 67006	8A - 10A

Description

The TR5® 374 Series are time–Lag 250V rated fuses, that are designed in accordance to UL 248–14.

Features

- Lead–free
- Reduced PCB space requirements
- Direct solderable or plug–in versions
- Internationally approved
- Low internal resistance
- Shock safe casing
- Vibration resistant
- Halogen free
- Available from 50mA to 10A

Applications

- Battery Chargers
- Consumer Electronics
- Power supplies
- Industrial Controllers

Electrical Characteristics

% of Ampere Rating	Opening Time
200%	60 Seconds, **Max.**

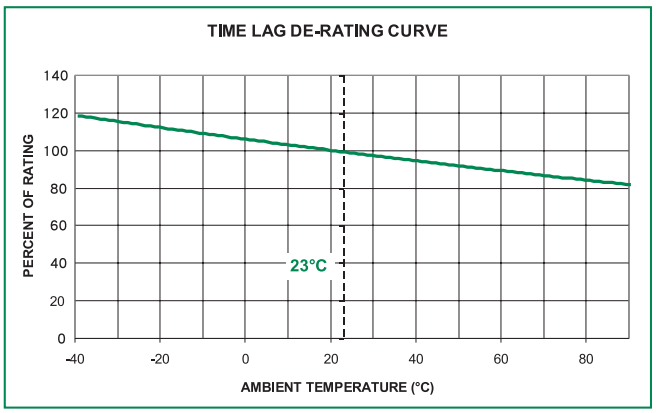
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Electrical Characteristics

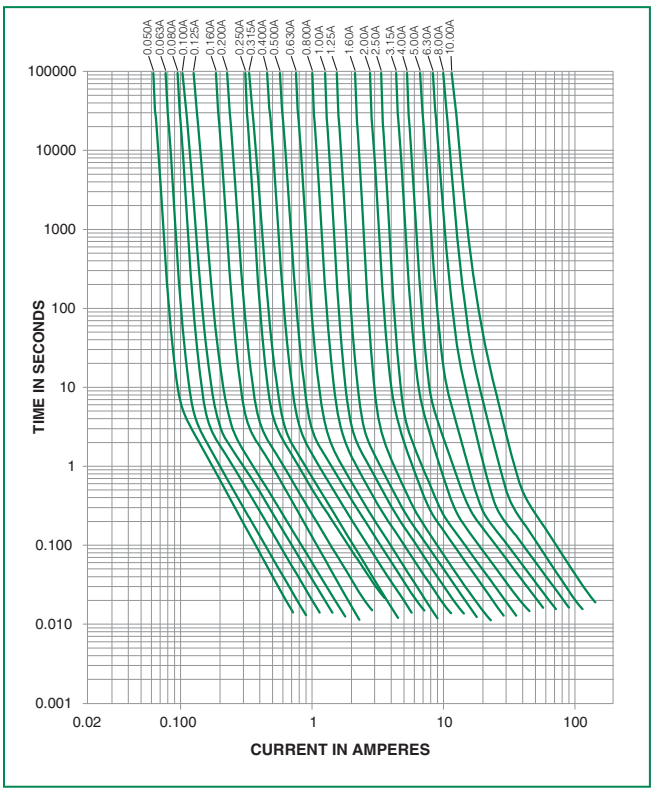
Amp Code	Rated Current	Voltage Rating	Breaking Capacity	Voltage Drop 1.0 x I_N max. (mV)	Power Dissipation 1.0 x I_N max. (mW)	Melting Integral 10 x I_N min. (A^2s)	Agency Approvals		
							UL	CSA	cULus
0050	50mA	250V	50 A / 250 VAC 50-60 Hz cos φ = 1.0	900	45	0.0056	x	x	
0063	63mA	250V		800	50	0.009	x	x	
0080	80mA	250V		700	55	0.014	x	x	
0100	100mA	250V		600	60	0.025	x	x	
0125	125mA	250V		550	70	0.044	x	x	
0160	160mA	250V		480	80	0.058	x	x	
0200	200mA	250V		390	80	0.1	x	x	
0250	250mA	250V		350	90	0.17	x	x	
0315	315mA	250V		300	95	0.26	x	x	
0400	400mA	250V		250	100	0.32	x	x	
0500	500mA	250V		220	110	0.6	x	x	
0630	630mA	250V		210	135	0.75	x	x	
0800	800mA	250V		160	130	0.98	x	x	
1100	1.00A	250V		155	155	2.1	x	x	
1125	1.25A	250V		145	185	3.2	x	x	
1160	1.60A	250V		130	210	4.5	x	x	
1200	2.00A	250V		125	250	7.5	x	x	
1250	2.50A	250V		120	300	14	x	x	
1315	3.15A	250V		110	350	22	x	x	
1400	4.00A	250V		100	400	36	x	x	
1500	5.00A	250V		95	475	59	x	x	
1630	6.30A	250V		90	570	110	x	x	
1800	8.00A[1]	250V		80	1000	150			x
2100	10.00A[1]	250V		90	1250	280			x

Note: 1.00 means the number one with two decimal places. 1,000 means the number one thousand.

Temperature De-Rating Curve

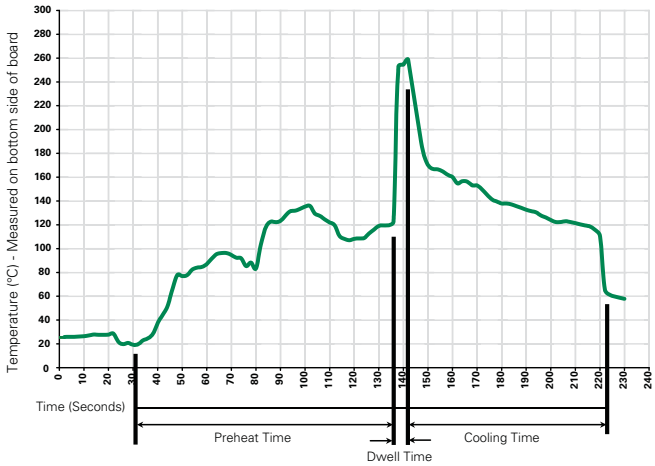


Average Time Current Curves



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Soldering Parameters - Wave Soldering



Recommended Process Parameters:

Wave Parameter	Lead-Free Recommendation
Preheat: (Depends on Flux Activation Temperature)	(Typical Industry Recommendation)
Temperature Minimum:	100° C
Temperature Maximum:	150° C
Preheat Time:	60-180 seconds
Solder Pot Temperature:	260° C Maximum
Solder Dwell Time:	2-5 seconds

Recommended Hand-Solder Parameters:

Solder Iron Temperature: 350° C +/- 5°C
Heating Time: 5 seconds max.

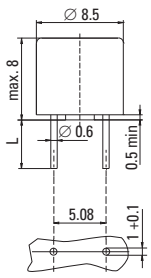
Note: These devices are not recommended for IR or Convection Reflow process.

Product Characteristics

Materials	Base/Cap: Brown Thermoplastic Polyamide PA 6.6, UL 94 V-0 Round Pins: Copper, Tin-plated
Lead Pull Strength	10 N (EN 60068-2-21)
Solderability	260°C, ≤ 3s. (Wave) 350°C, ≤ 1s. (Soldering Iron)
Soldering Heat Resistance	260°C, 10s. (IEC 60068-2-20) 350°C, 3s. (Soldering Iron)

Operating Temperature	-40°C to +85°C (consider de-rating)
Climatic Category	-40°C/+85°C/21 days (EN 60068-1,-2-1,-2-2,-2-78)
Stock Conditions	+10°C to +60°C RH ≤ 75% yearly average, without dew, maximum value for 30 days-95%
Vibration Resistance	24 cycles at 15 min. each (EN 60068-2-6) 10 - 60 Hz at 0.75 mm amplitude 60 - 2000 Hz at 10G's acceleration

Dimensions



Holes in PCB

Long Leads (L=18.8mm)
Short Leads (L=4.3mm)

Part Numbering System

374 xxxx 0000

Series

Amp Code
Refer to Amp Code column of Electrical Characteristics Table

Packaging Code
0000 Tape/Ammopack (1,000 pcs.)
0410 Short Leads - Bulk (1,000 pcs.)
0430 Short Leads - Bulk (200 pcs.)

Packaging

Packaging Option	Packaging Specification	Quantity	Quantity & Packaging Code	Taping Width
374 Series				
Tape & Ammopack	N/A	1,000	0000	N/A
Short Leads	N/A	1,000	0410	N/A
Short Leads	N/A	200	0430	N/A

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